



U.S. Department
of Transportation

United States
Coast Guard

FOREIGN TANK VESSEL EXAMINATION BOOK

Name: _____

VIN: _____

Propulsion: _____

Date of Inspection: _____

INSTRUCTIONS

PURPOSE OF EXAMINATION

To determine compliance with applicable U.S. laws and regulations and the following International Maritime Organization (IMO) and International Labor Organization (ILO) Conventions.

International Convention for the Safety of Life at Sea 1974, as amended (SOLAS 74)
International Convention on Load Lines, 1966 as amended (ICLL 66) International
Convention for the Prevention of Pollution from Ships 1973, as modified by the
Protocol of 1978 (MARPOL 73/78)
Standards of Training Certification and Watchkeeping for Seafarers, 1978 (STCW 78)
International Regulations for Preventing Collisions at Sea, 1972 (COLREGS 72)
Merchant Shipping (Minimum Standards) Convention, 1976 (ILO 147)

PROCEDURES

During all Examinations and Reexaminations complete Section C, Examination of Documents. Following this, conduct a general walk through of the vessel's navigation, accommodation, cargo and machinery spaces; examine the items listed in Section D, the General Examination. Annual examinations should include testing of specific equipment, and conducting operational testing and emergency drills with the vessel's crew. The examination should be conducted to the extent necessary to determine that the vessel, its crew and equipment comply with the applicable domestic and international laws. If the vessel's certificates are valid and the boarding team's general impression and visual observations reveal no serious deficiencies and confirm a good standard of maintenance, the inspection should be terminated at this point. If, however, one or more of the following conditions exist, complete Section E, Expanded Examination:

1. the vessel's certificate(s) are clearly invalid;
2. evidence that vessel logs, manuals or other required documentation are not on board, are not maintained, or are falsely maintained;
3. evidence from a general examination that serious hull or structural deteriorations or deficiencies may exist;
4. evidence from a general examination that serious equipment deficiencies may exist;
5. evidence of serious operational shortcomings (i.e., officers/crew not familiar with essential shipboard operations or equipment);
6. evidence of cargo and other operations not being conducted safely;
7. involvement of the vessel in incidents due to failure to comply with operational requirements (such as a spill or collision);
8. indications that key crew members may not be able to communicate with each other or with other persons on board.

(Note: The above list is not all inclusive, as there may be other conditions which, in the opinion of the boarding team, warrant an expanded examination.)

It is not necessary to complete the entire expanded examination section during each boarding. The boarding team need only complete that section of the expanded examination in which the serious deficiencies, as noted above, were discovered.

SOLAS Applicability

SOLAS 48, 60 and 74 citations are listed (as shown below) under each examination bullet. To determine which convention applies to a particular vessel: (1) retrieve the vessel's keel laid or similar stage of construction date from the Safety Construction or Safety Equipment Certificate; (2) using that date, select the applicable SOLAS convention from the chart below; (3) apply the citation listed for that convention. For example, if a vessel's keel was laid on 1 December 1967, use the SOLAS 60 citations. If no SOLAS 60 cite is listed, the requirement does not apply to that ship. If the expression SOLAS 74 amended (all vessels) appears, the particular requirement applies to all vessels regardless of their build date. Additionally, SOLAS requirements vary by gross tonnage.

If the vessel's:	Then use:
.....
Keel laid or similar stage of construction on or after 19 November 1952 but before 26 May 1965	SOLAS 48
.....
Keel laid or similar stage of construction on or after 26 May 1965 but before 25 May 1980	SOLAS 60
.....
Keel laid or similar stage of construction on or after 25 May 1980 but before 1 September 1984	SOLAS 74 unamended
.....
Keel laid or similar stage of construction on or after 1 September 1984 but before 1 July 1986	SOLAS 74, 1981 amendments
.....
Keel laid or similar stage of construction on or after 1 July 1986, except as noted	SOLAS 74 amended*
.....
Keel laid or similar stage of construction before, on or after 1 July 1986	SOLAS 74 amended (all ships)*
.....

* Incorporates 1983 through 1991 amendments.

FOREIGN TANK VESSEL EXAMINATION BOOK

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SECTION A - SHIP PARTICULARS*

Flag: _____ Date Keel Laid: _____
Call Sign: _____ Gross Tonnage: _____
Service: _____ Net Tonnage: _____
Horsepower: _____ Deadweight Tons: _____
Propulsion: _____ Reg. Length: _____

SECTION B - INVOLVED PARTIES*

OWNER _____ OPERATOR _____

AGENT _____ CLASSIFICATION SOCIETY _____

SECTION C - EXAMINATION OF DOCUMENTS*

I. GENERAL

	ID Number	Issuing Agency	Port Issued	Date Issued	Date Exp.	Endorsment
Cert. of Registry	_____	_____	_____	_____	_____	_____
Classification Doc.	_____	_____	_____	_____	_____	_____
Safety Construction	_____	_____	_____	_____	_____	_____
Safety Equipment	_____	_____	_____	_____	_____	_____
Safety Radio	_____	_____	_____	_____	_____	_____
Loadline	_____	_____	_____	_____	_____	_____
IOPP	_____	_____	_____	_____	_____	_____
Tonnage	_____	_____	_____	_____	_____	_____
COFR	_____	USCG	_____	_____	_____	_____

* COMPLETE ONLY WHEN INFORMATION DIFFERS FROM MSIS

SECTION C - EXAMINATION OF DOCUMENTS (continued)

II. MANNING

- A. Safe Manning Document
(SOLAS 74 amended V/13, IMO Resolution A.481(XII))
[See G-MVP-4 Ltr 16712 of 19 Jun 92, Principles of Safe Manning]

- ♦ Ship manned IAW Safe Manning Document

NOTE: If ship does not have a Safe Manning Document or is not manned IAW Safe Manning Document, local Consulate must be contacted and the deficiency resolved prior to the ship's departure from port.

- B. Officers Certificates

- ♦ Master and Chief Engineer Licenses
(STCW 78 II/2, III/2)
- ♦ Navigating and Engineering Officers Licenses
(STCW 78 II/4, III/4)

- C. Crew
(ILO 147, Art. II)

- ♦ Minimum age: 15
- ♦ Medical Examinations for each crew member issued by Flag State
(Not older than 2 years)

III. LOGBOOK ENTRIES

- ♦ Pre-arrival/departure tests
(U.S. waters)
(33 CFR 164.25)
- ♦ Navigation equipment/steering gear failures reported
(33 CFR 164.53(b))
- ♦ Steering gear test/drills
(SOLAS 74 amended V/19-2)(all ships)
- ♦ Emergency steering drills
(quarterly)(SOLAS 74 amended V/19-2)
(all ships)
- ♦ Abandon ship and fire drills
(SOLAS 74 amended III/18.3, 18.5)(all ships)
- ♦ On-board training in use of lifesaving equipment - all crew members
(SOLAS 74 amended III/18.4, 18.5)(all ships)
- ♦ Visual inspection of survival craft/rescue boat and launching appliances
(weekly)(SOLAS 74 amended III/19.6.1)
(all ships)
- ♦ Operation of lifeboat/rescue boat engines
(weekly)(SOLAS 74 amended III/19.6.2)
(all ships)
- ♦ General Alarm tested
(weekly)(SOLAS 74 amended III/19.6.3)
(all ships)
- ♦ Lifesaving appliances, including lifeboat equipment examined
(monthly)(SOLAS 74 amended III/19.7)
(all ships)

SECTION C - EXAMINATION OF DOCUMENTS (continued)

IV. CARGO

(33 CFR 157. HQ policy ltr 22-93)

A. Calculations, Plans & Specifications
(Initial inspection - 1st U.S. port)

New Ship

- ♦ Tank arrangement
(33 CFR 157.24(a))
- ♦ Segregated ballast capacity
(33 CFR 157.24(c))
- ♦ Other Plans and Specifications
(33 CFR 157.24(d))

Existing Ship

- ♦ Segregated ballast tanks
(33 CFR 157.24a(b), (c))

B. Inspection for Reissue of COC

- ♦ If Modifications have been made to cargo tanks, ballast tank capacity and/or distribution since the last COC Exam, complete Section A in addition to C.

C Ship Particulars
(Initial or Reissue)

Pumping, Piping & Discharge
(33 CFR 157.11)

Cargo Monitor and Control
(33 CFR 157.12, Subpart c)

- ♦ CG Approval No. 162.050 _____
OR
Meets IMO Resolution A.393(X)

Designated Observation Area
(33 CFR 157.13)

Slop Tanks
(33 CFR 157.15)

- ♦ Number of slop tanks: _____
- ♦ Total Capacity: _____

Oily Residue Tank
(33 CFR 157.17)

Cargo and Ballast Information
(33 CFR 157.23)

Ship Operation
(33 CFR 157, Subpart c)

Crude Oil Washing (COW) System

- ♦ Required documents
(33 CFR 157.118)
- ♦ Waiver
(33 CFR 157.120)

SECTION C - EXAMINATION OF DOCUMENTS (continued)

IV. CARGO (Cont'd)

(33 CFR 157, HQ policy ltr 22-93)

Dedicated Clean Ballast Tanks

- ♦ Plans and Documents
(33 CFR 157.202)
- ♦ Operations Manual
(33 CFR 157.208)
- ♦ Required Documents
(33 CFR 157.216)

V. POLLUTION PREVENTION RECORDS

A. Check for the following:

- ♦ Person In Charge
- ♦ Hose and Piping Tests
- ♦ Declaration of Inspection
- ♦ Oil Record Book
(MARPOL 73/78, Annex I, R.20) (33 CFR 151.25)
- ♦ Shipboard Oil Pollution Emergency Plan
(MARPOL 73/78, Annex I, R.26) (33 CFR 151.26)
- ♦ Oil Transfer Procedures
(33 CFR 155.720-760)
- ♦ Transfer Records
(33 CFR 155.820)

B. If ship is authorized to carry NLS, ship has endorsement on COC and cargoes authorized are listed
(Annex II) (see also NVIC 5-87)

C. Category D
(33 CFR 157.35(c))

- ♦ NLS Certificate OR
- ♦ Endorsement on COC

D. Category C Oil-like
(33 CFR 157.33)

- ♦ Attachment to IOPP Certificate OR
- ♦ Endorsement on COC

E. Category D Oil-like
(33 CFR 157.35(d))

- ♦ Attachment to IOPP Certificate OR
- ♦ NLS Certificate OR
- ♦ Endorsement on COC

F. Approved Procedures & Arrangement Manual
(46 CFR 153.490(a)&(b))

G. Cargo Record Book

- ♦ Required statement
(33 CFR 157.41(b)(2))
- ♦ Format
(46 CFR 153.490(a)(1))
- ♦ Properly completed
(46 CFR 153.909)

SECTION D - GENERAL EXAMINATION

I. NAVIGATION SAFETY

A. Charts & Publications for U.S. waters/intended voyage

(SOLAS 74 amended V/20)(all ships)(33 CFR 164.33)

- * Charts
- * U.S. Coast Pilot
- * Sailing Directions
- * Coast Guard Light List
- * Tide Tables
- * Tidal Current Tables

B. Required navigation equipment on board(SOLAS requirements vary with gross tonnage and/or date constructed)

- * Radar(s)
(2nd radar required if \geq or $>$ 10,000 GT)
(SOLAS 74 amended V/12(g) & (h))
(33 CFR 164.35(a) & .37(a))
- * Automatic Radar Plotting Aid (ARPA), labeled
(SOLAS 74 amended V/12(j))
(33 CFR 164.38(b) & (d))
- * Magnetic compass
(SOLAS 74 amended V/12(b).(c))
(33 CFR 164.35(b))
- * Deviation table
(SOLAS 74 amended IV/12(b)(ii))
(33 CFR 164.35(c))
- * Gyrocompass
(SOLAS 74 amended V/12(d) & (e))
(33 CFR 164.35(d))
- * Rudder angle indicator
(SOLAS 74 amended V/12(m))(33 CFR 164.35(e))
- * Maneuvering fact sheet with warning statement
(33 CFR 164.35(g))
- * Echo Depth Sounding Device
(SOLAS 74 amended V/12(k))(33 CFR 164.35(h))
- * Device for recording readings of Echo Depth Sounding Device
(33 CFR 164.35(i))
- * Equipment for plotting relative motion
(SOLAS 74 amended V/12(l))(33 CFR 164.35(j))
- * Emergency steering instructions
(33 CFR 164.35(k))
- * Propellor RPM indicator
(SOLAS 74 amended V/12(m))(33 CFR 164.35(l))
- * Propellor pitch indicator
(SOLAS 74 amended V/12(m))(33 CFR 164.35(m))
- * Speed and distance indicator
(SOLAS 74 amended V/12(l))(33 CFR 164.40)
- * Electronic Position Fixing Devices (LORAN, SATNAV, GPS)
(33 CFR 164.41)
- * Radio direction finding apparatus
(SOLAS 74 amended V/12(p))(33 CFR 164.41)
- * Daylight signalling lamp
(SOLAS 74 amended V/11)

SECTION D - GENERAL EXAMINATION (continued)

I. NAVIGATION SAFETY (Cont'd)

C. Radiotelephone (Ch.13, 16 & 22A) VHF-FM
(SOLAS 74 amended IV/7) (33 CFR 26.03, .04)

D. Satellite Emergency Position Indicating
Radio Beacon (EPIRB)
(SOLAS 74 amended IV/7) (all ships)

- Float-free mount

II. ILO-147
(COMDTINST 16711.12 dated 02 Jun 89)

A. Accident Prevention and Occupational
Health

- Rails, guards, protective clothing
& equipment, warning signs posted
in crew work areas

B. Crew Accommodations

- Habitable conditions
- Adequate lighting and ventilation
- Free of cargo and stores

C. Hospital Space

- Designated for ships =or>500 GT
with 15 or more crew on voyage of
more than 3 days

D. Food and Catering

- Adequate supplies for voyage
- Preparation areas clean and
sanitary
- Storage free of insects

III. STRUCTURAL INTEGRITY

A. Side shell, decks and superstructure

- Fractures, wastage, pitting or
damage to the extent that it may
impair ship's seaworthiness
- Loadline marked in accordance with
certificate
- Guardrails, bulwarks, walkways
(ICLL 66 R.25)

B. Watertight/weathertight openings

- Watertight doors, gaskets, dogs
(ICLL 66 R.12)
- Hatches and other openings and
means of securing
(ICLL 66 Rs.13 to 18)
- Vents, air pipes and closing
appliances
(ICLL 66 Rs.19 and 20)

SECTION D - GENERAL EXAMINATION (continued)

III. STRUCTURAL INTEGRITY (Cont'd)

C. External examination of Inert Gas System
(IGS) (46 CFR 32.53, MSM Vol. II, Ch. 15)

- ♦ Piping and components, Scrubber
- ♦ Fans, Valves, Expansion Joints
- ♦ No corrosion or leakage

IV. CARGO

A. Pumprooms
(46 CFR Subchapter D)

- ♦ Marine Chemist Certificate
(If not gas free, issue CG-835 to make available at next U.S. port)
- ♦ Location
(46 CFR 32.60-20(a))
- ♦ Electrical Installations
(46 CFR 111.105-31(b), (c) & (f)-(h))
- ♦ Fire Extinguishing System
(46 CFR 34.05-5(a)(4))
- ♦ Ventilation
(46 CFR 32.60-20(b) or (c))
- ♦ Potential Sources of Ignition
(gear adrift, product in bilges, rags, paint cleaning solvents, vapors)

Marine Chemist No. _____
Certificate No. _____
Date Issued _____

B. Piping Systems
(46 CFR 32.50-15, .50-30 & .52-5)

C. Operations

- ♦ Stowage conditions observed
(46 CFR 148.03-11)
- ♦ Special additional requirements
(46 CFR 148.04)
- ♦ Additional requirements of special permit
(46 CFR 148.01-11)

D. Oil and Hazardous Material Transfer
(If ship is transferring) (33 CFR 156)

- ♦ Vapor Control System (VCS) -
Ship's COC endorsed (When applicable)
(46 CFR 39.10-13(d))
(33 CFR 156.120(aa) & .170(g))
- ♦ Requirements for Oil Transfer
(33 CFR 156.120) (Applicable sections)
- ♦ Connection
(33 CFR 156.130)
- ♦ Declaration of Inspection
(33 CFR 156.150)
- ♦ Equipment Tests and Inspections
(33 CFR 156.170)
- ♦ Date of last cargo piping
hydrostatic test: _____

SECTION D - GENERAL EXAMINATION (continued)

V. POLLUTION PREVENTION

A. Oil in bulk

- ♦ Cargo Oil Containment
(33 CFR 155.310)
- ♦ Fuel oil and bulk lubricating oil
discharge containment
(33 CFR 155.320)
- ♦ Placard
(33 CFR 155.450)
- ♦ Prohibited Oil Spaces
(33 CFR 155.470)
- ♦ Emergency Shutdown
(33 CFR 155.780)
- ♦ Deck Lighting
(33 CFR 155.790)
- ♦ Oil Transfer Hose
(33 CFR 155.800 & 805)
- ♦ Ship Security
(33 CFR 155.810)

Oil discharge monitoring & control
system

(MARPOL 73/78 Ax.1 R.16)

- ♦ Operation, automatic and manual
- ♦ Means to stop discharge
- ♦ Indicators and recording devices
- ♦ Supply of consumables for recorders

Oily-Water Separating Equipment,
bilge alarm & bilge monitor

(MARPOL 73/78 Ax.1/16)(33 CFR 155.380(b))

- ♦ Approval No. 162.050 _____
OR
- ♦ Listed in current IMO MEPC Circular
summary of MARPOL 73/78 approved
equipment
- ♦ Alarm, recorder

Standard Discharge Connection

(MARPOL 73/78/90 Ax.1 R.19)(33 CFR 155.430)

B. Garbage

- ♦ Shipboard garbage properly disposed
(MARPOL 73/78 Ax.V/4)(33 CFR 151.63)

C. Marine Sanitation Device

- ♦ Type (I, II, or III)
(33 CFR 159.7)
- ♦ Nameplate
(33 CFR 159.55(b))
- ♦ Placard
(33 CFR 159.59)
- ♦ Int Sewage Pollution Prevention Cert
(MARPOL IV, Reg. 4,5,6,7)

SECTION D - GENERAL EXAMINATION (continued)

VI. VENTILATION

(46 CFR Subpart 32)

- ♦ General
(46 CFR 32.55-1)
- ♦ Hold Spaces
(46 CFR 32.55-15)
- ♦ Cargo Tanks
(46 CFR 32.55-20(a))

VII. SPECIAL EXAMINATION FOR OIL TANKERS OVER 10 YEARS OLD

(MVI policy ltr #8-92)

- ♦ A mid-body ballast tank internally examined.
Tank No: _____

OR

- ♦ A mid-body ballast tank not available for inspection - issued requirement to make available at next U.S. Port

VIII. GROUND TACKLE

A. Anchor & windlass

- ♦ Foundations
- ♦ Covers for moving parts
- ♦ Brake
- ♦ Wiring or Hydraulic piping

B. Mooring winches/capstans

- ♦ Foundations
- ♦ Brake
- ♦ Wiring or Hydraulic piping

IX. LIFESAVING EQUIPMENT

A. Lifeboats/rescue boats

- ♦ Required number
(SOLAS 48 III/8.32)
(SOLAS 60 III/8.35)
(SOLAS 74 unamended III/8.35)
(SOLAS 74 amended III/26)
- ♦ Operating instructions posted
(SOLAS 74 amended III/9)(all ships)
- ♦ Hull and fittings
(SOLAS 74 amended III/19.2)(all ships)
- ♦ Winches, davits, cables, blocks and sheaves
(SOLAS 74 amended III/19.2)(all ships)

IX. LIFESAVING EQUIPMENT (Cont'd)

- ♦ Embarkation ladder
 - (SOLAS 48 III/14)
 - (SOLAS 60 III/19)
 - (SOLAS 74 unamended III/19)
 - (SOLAS 74 amended III/11.7)

B. Liferafts

- ♦ Required number
 - (SOLAS 74 amended III/26.3) (cargo ships built before 1 July 1986)
 - (SOLAS 74 amended III/26.1)
- ♦ Stowage
 - (SOLAS 74 amended III/26.3) (cargo ships built before 1 July 1986)
 - (SOLAS 74 amended III/29)
- ♦ Operating instructions posted
 - (SOLAS 74 amended III/9) (all ships)
- ♦ Embarkation ladder
 - (SOLAS 48 III/14)
 - (SOLAS 60 III/19)
 - (SOLAS 74 unamended III/19)
 - (SOLAS 74 amended III/11.7)
- ♦ Inflatable liferaft serviced within 12 months
 - (SOLAS 74 amended III/19.8.1) (all ships)
- ♦ Hydrostatic release serviced within 12 months
 - (SOLAS 74 amended III/19.9.1) (all ships)
- ♦ Winches, davits, cables, lifting hooks, if applicable
 - (SOLAS 74 amended III/19.2) (all ships)

C. Lifebuoys

- ♦ Condition
 - (SOLAS 74 amended III/19.2) (all ships)
- ♦ Self-igniting lights/smoke signals
 - (SOLAS 48 III/16(b))
 - (SOLAS 60 III/21(e), (g))
 - (SOLAS 74 unamended III/21(e), (g))
 - (SOLAS 74 amended III/7.1.3)
- ♦ Buoyant lines
 - (SOLAS 48 III/16(b)) (not necessarily buoyant)
 - (SOLAS 60 III/21(d))
 - (SOLAS 74 unamended III/21(d))
 - (SOLAS 74 amended III/7.1.2)
- ♦ Retro-reflective tape
 - (SOLAS 74 amended III/30.2.7) (all ships)

D. Lifejackets

- ♦ Condition
 - (SOLAS 74 amended III/19.2) (all ships)
- ♦ Stowage
 - (SOLAS 48 III/17)
 - (SOLAS 60 III/22)
 - (SOLAS 74 unamended III/22)
 - (SOLAS 74 amended III/7.2)

SECTION D - GENERAL EXAMINATION (continued)

IX. LIFESAVING EQUIPMENT (Cont'd)

- ♦ Retro-reflective material
(SOLAS 74 amended III/30.2.7)(all ships)
- ♦ Lights
(SOLAS 74 amended III/27.2)(all ships)
- ♦ Whistles
(SOLAS 60 III/22(c)(viii))
(SOLAS 74 unamended III/22(c)(vi))
(SOLAS 74 amended III/32.1.6)

E. Immersion Suits and Thermal Protective Aids

(SOLAS 74 amended III/27.3)(all ships)

- ♦ Condition
(SOLAS 74 amended III/19.2)(all ships)
- ♦ Retro-reflective material
(SOLAS 74 amended III/30.2.7)

X FIRE PROTECTION

A. Fire Control Plan

(SOLAS 74 amended II-2/20)(all ships)

- ♦ Permanently exhibited
- ♦ Language understood by crew
- ♦ Permanently stored in weathertight container outside deckhouse

F Muster List and Emergency Instructions

- ♦ Available for each person
(SOLAS 74 amended III/8)(all ships)
- ♦ Muster list shows crewmember duties
(SOLAS 74 amended III/53)(all ships)
- ♦ Posted in conspicuous places
(SOLAS 74 amended III/8)(all ships)
- ♦ Language understood by crew
(SOLAS 74 amended III/8)(all ships)

C. Fire Extinguishers

- ♦ Good condition/available for immediate use
(SOLAS 74 amended II-2/21)(all ships)
- ♦ Date last serviced _____
(SOLAS 48 II/46)
(SOLAS 60 II/57(d))
(SOLAS 74 unamended II-2/7(e))
(SOLAS 74, 1981 amendments II-2/6.5)
(SOLAS 74 amended II-2/6.5)

D. Fire Main System

- ♦ Required number of fire pumps
(SOLAS 48 II/45)
(SOLAS 60 II/56)
(SOLAS 74 unamended II-2/52)
(SOLAS 74, 1981 amendments II-2/4.5)
(SOLAS 74 amended II-2/3)

SECTION D - GENERAL EXAMINATION (continued)

X FIRE PROTECTION (Cont'd)

- ♦ Location of pumps
(SOLAS 48 II/45)
(SOLAS 60 II/56(d))
(SOLAS 74 unamended II-2/52)
(SOLAS 74, 1981 amendments II-2/4.3)
(SOLAS 74 amended II-2/4.3.3.2)
- ♦ Pumps, hydrants, piping, hoses and nozzles in good condition and available for immediate use
(SOLAS 74 amended II-2/21)(all ships)

E. Fixed Fire Extinguishing Systems:
cargo, machinery and other spaces

- ♦ Tanks, cylinders, piping, controls, alarms, and release mechanisms in good condition and available for immediate use
(SOLAS 74 amended II-2/21)(all ships)
- ♦ Date last serviced _____

F. International Shore Connection

- (SOLAS 60 II/56(h))
- (SOLAS 74 unamended II-2/5)
- (SOLAS 74, 1981 amendments II-2/19)
- (SOLAS 74 amended II-2/19)

G. Means of escape from accommodation,
machinery and other spaces

- ♦ Two required (some exceptions)
(SOLAS 60 II/68(b))
(SOLAS 74 unamended II-2/53)
(SOLAS 74, 1981 amendments II-2/45)
(SOLAS 74 amended II-2/45)
- ♦ Dead end corridors
(SOLAS 74, 1981 amendments II-2/45)
(SOLAS 74 amended II-2/45.1.4)

XI. MACHINERY SPACES

A. Main & Auxiliary Machinery Installations

- ♦ General Housekeeping
- ♦ Fire hazards
- ♦ No leaking fuel oil piping or fittings
- ♦ Shock and electrical hazards
- ♦ Personnel hazards (moving parts not protected, hot surfaces, etc.)
- ♦ Tank tops and bilges free of oil
- ♦ Sea chests, sea valves/spool pieces in good condition

SECTION D - GENERAL EXAMINATION (continued)

XI. MACHINERY SPACES (Cont'd)

B. Main and Auxiliary steering gear

(SOLAS 60 II/29.30)

(SOLAS 74 unamended II/29.30)

(SOLAS 74, 1981 amendments II-1/29.30)

(SOLAS 74 amended II/29.30)

- ♦ Conduct operational test
IAW MSM Vol.II, Chapter 19.L
(conduct operational test only during
annual exam)
- ♦ Operating Instructions for steering
gear posted: navigating bridge and
steering gear compartment
(SOLAS 74 amended V/19-2(c)(1))(all ships)

SECTION E - EXPANDED EXAMINATION

I NAVIGATION SAFETY

A. Test navigation equipment listed in
Section D.I.B. to the extent necessary to
determine equipment is operating properly

B. Human Factors

Determine if deck officers are
familiar with:

- ♦ Operation of bridge control and
navigational equipment
- ♦ Use of nautical publications and
charts
- ♦ Ship maneuvering characteristics
- ♦ Life-saving signals
- ♦ Bridge procedures, instructions,
manuals, etc.
- ♦ Changing steering from automatic to
manual and vice versa
- ♦ Preparations for arrival and
departure
- ♦ Communications with engineroom
- ♦ Use of VHF

C. Lights, Shapes and Sound Signals

(International Regulations for
Preventing Collisions at Sea in
force. Rs.20 to 24, 27 to 30 and 33)

- ♦ Navigation lights and day shapes
- ♦ Sound signals
- ♦ Distress signals

II. CARGO OPERATIONS

A. Human Factors - Determine if personnel
assigned to cargo operations are familiar
with:

- ♦ Hazardous materials regulations

SECTION E - EXPANDED EXAMINATION (continued)

II. CARGO OPERATIONS (Cont'd)

- ♦ Special requirements (i.e., loading, segregation, firefighting equipment, etc.) for particular cargoes
- ♦ Dangers posed by the cargo
- ♦ Measures to be taken for cargo emergencies

III. POLLUTION PREVENTION

A. Equipment

- ♦ Test automatic stopping device required for discharge
(MARPOL 73/78/90 Ax.I R.10)
- ♦ Segregation of oil fuel and water ballast systems
(MARPOL 73/78/90 Ax.I R.14)
- ♦ Oily residue tank - discharge arrangements, homogenizers, incinerators, etc.
(MARPOL 73/78/90 Ax.I R.17)
- ♦ Emergency Shutdown: witness operational test
(33 CFR 155.780)

B. Human Factors

Oil and oily mixtures
(MARPOL 73/78 Ax.I)

- ♦ Responsible officer familiar with handling of sludge and bilgewater
- ♦ Quantity of residues generated
- ♦ Capacity of holding tanks
- ♦ Capacity of oily water separator
- ♦ Oil record book
- ♦ Note any inadequacies in reception facilities used, advise Master to report these to flag state

Garbage
(MARPOL 73/78 Ax.V)

- ♦ Note any inadequacies in reception facilities used, advise Master to report these to flag state
- ♦ Crew familiar with Annex V requirements

IV. INERT GAS SYSTEMS (IGS)

(46 CFR 32.53, MSM Vol.11, Ch.15)

A. Indicate type of system installed:

- ♦ Flue Gas
- ♦ Gas Generator
- ♦ Nitrogen Bottles

SECTION E - EXPANDED EXAMINATION (continued)

IV. INERT GAS SYSTEMS (IGS) (Cont'd)
(46 CFR 32.53, MSM Vol. II Ch. 15)

B. Describe sampling/testing of gas pad:
Tanks sampled and percent Oxygen or
Nitrogen

- Tank No. _____ : % O₂ or N₂ _____
- Tank No. _____ : % O₂ or N₂ _____
- Tank No. _____ : % O₂ or N₂ _____

OR

- Ship is gas free or not carrying
cargoes required to be inerted

C. _____ Witnessed proper operation of:

- Blowers (no excessive bearing noise,
vibration)
- Scrubber room ventilation
- Primary and alternate salt water
scrubber pumps
- Deck seal (water level, automatic
filling, and where fitted, open
drain cocks on IG main)
- Remote operated/automatic control
valves (open or closed indicator)
- Gauges: witness calibration of
inline O₂ analyzing equipment, check
O₂ and pressure level recordings.
- Portable instruments calibrated
- For IG generator, combustion control
system and fuel supply
- For IG Generator, interlocking of
soot blowers (IGS automatically
shuts down when soot blowers
engaged)
- Remote shutdown for IGS blower
(46 CFR 111.103-9)

D. _____ Witnessed operational tests of the
following audible and visual alarms:

- High O₂ content of gas in IGS main
(activated at 8% concentration)
- Low gas pressure in IGS main
downstream of all non-return devices
(activated at 100mm (4") H₂O)
- High gas pressure in IGS main
downstream of non-return devices
(blowers and gas regulating valve
automatically shut down/closed)
- Low/High water level, or low flow to
deck seal (blowers automatically
shut down)
- Blower discharge high temperature:
alarms activated at 150°F (65.6°C)
or lower, blowers automatically shut
down, gas regulating valve closed
- Failure of IGS blower(s) (gas
regulating valves closed)

SECTION E - EXPANDED EXAMINATION (continued)

IV. INERT GAS SYSTEMS (IGS) (Cont'd)

(46 CFR 32.53, MSM Vol. II Ch. 15)

- ♦ Low water pressure or flow to the flue gas scrubber (blowers and gas regulating valve automatically shut down)
- ♦ High water level in the flue gas scrubber (blowers and gas regulating valve automatically shut down)
- ♦ Failure of power supply to automatic control system for gas regulating valve and indicating devices for IG supply
- ♦ For systems with IG Generators, insufficient fuel supply, failure of power supply to Generator or control system for Generator

V. VENTILATION

(46 CFR Subpart 32)

A. If ship is authorized to carry Grades A - E liquid cargoes:

(46 CFR 32.55-20(b))

- ♦ Pressure/Vacuum Valves
- ♦ Flame screens proper
- ♦ Free of corrosion
- ♦ Valve Material proper
- ♦ Vent header height above deck
- ♦ Vent header distance from nearest living/work spaces, ventilation inlet, or source of ignition

B. If ship is authorized to carry Grades B - E liquid cargoes:

(46 CFR 32.55-20(c))

- ♦ Cargo tanks fitted with individual P/V valves, or vent header

C. If ship is authorized to carry only Grade D or E liquid cargoes:

(46 CFR 32.55-20(d))

- ♦ Goosenecks & flame screens

VI. LIFESAVING

A. Lifeboats/liferafts/rescue boats

- ♦ Ensure effective operation of winches, davits, falls, sheaves, etc. (Lower at least one lifeboat to the water)
- ♦ Falls end for ended within 30 months (SOLAS 74 amended III/19.4) (all ships)
- ♦ Falls renewed within 5 years (SOLAS 74 amended III/19.4) (all ships)

SECTION E - EXPANDED EXAMINATION (continued)

VI. LIFESAVING (Cont'd)

- Test lifeboat and rescue boat
flemming gear and/or engines
(SOLAS 74 amended III/19.2)(all ships)
- Verify presence/condition of
lifeboat equipment
(SOLAS 48 III/11)
(SOLAS 60 III/11)
(SOLAS 74 unamended III/11)
(SOLAS 74 amended III/41.8)
- Retro-reflective tape
(SOLAS 74 amended III/30.2.7)
- Lighting
(SOLAS 48 III/14)
(SOLAS 60 III/19)
(SOLAS 74 unamended III/19)
(SOLAS 74 amended III/11.4)

B. Emergency communication equipment

- 2-way VHF radiotelephone apparatus
(SOLAS 74 amended III/6.2.1)(all ships)
- Radar transponders
(SOLAS 74 amended III/6.2.2)(all ships)
- Survival craft EPIRBs
- On-board communication and alarm
system
(SOLAS 74 amended III/4.1)

C. Line-throwing appliance

- Specifications and equipment
(SOLAS 48 III/18)
(SOLAS 60 III/23)
(SOLAS 74 unamended III/23)
(SOLAS 74 amended III/17, 49)

D. Pilot ladders & hoists in good condition
(SOLAS 74 amended V/17)(all ships)

E. Distress signals

- 12 rocket parachute flares
(SOLAS 60 III/24)
(SOLAS 74 unamended III/24)
(SOLAS 74 amended III/6.3)

VII. FIRE PROTECTION

A. Structural fire protection

- (SOLAS 60 II/54)
- (SOLAS 74 unamended II/51)
- (SOLAS 74, 1981 amendments II-2/42-44, 46, 49, 50)
- (SOLAS 74 amended II-2/42-44, 46, 49, 50)

- Bulkheads and decks meet applicable
fire integrity requirements
- Openings (i.e., doors, ductwork
electrical wires, piping, etc.)
constructed so that they do not
destroy fire resistance of bulkheads
- Manual and automatic fire doors
examined/tested

SECTION E - EXPANDED EXAMINATION (continued)

VII. FIRE PROTECTION (Cont'd)

B. Fire detection, fire alarm and automatic sprinkler systems, fitted where required and operating properly

(SOLAS 74 unamended II-2/14)

(SOLAS 74, 1981 amendments II-2/52)

(SOLAS 74 amended II-2/52)

C. Ventilation Systems

- ♦ Main inlets and outlets of all ventilation spaces can be closed from outside ventilated space

(SOLAS 74 unamended II/54(a))

(SOLAS 74, 1981 amendments II-2/48.16.9)

(SOLAS 74 amended II-2/48.16.9)

- ♦ Power ventilation capable of being shutdown from outside ventilated space

(SOLAS 74 unamended II/51(h))

(SOLAS 74, 1981 amendments II-2/48.16.10)

(SOLAS 74 amended II-2/48.16.10)

D. Fire pumps

- ♦ Fire main activated; water pressure satisfactory (energize forward-most and highest hydrants)

(SOLAS 48 II/45(a))

(SOLAS 60 II/56(c))

(SOLAS 74 unamended II-2/5(c))

(SOLAS 74, 1981 amendments II-2/4.4)

(SOLAS 74 amended II-2/4)

E. Paint lockers and flammable liquid lockers protected by an appropriate fire-extinguishing arrangement

(SOLAS 74 amended II-2/18.7)(all ships)

F. Fixed fire extinguishing arrangements in cargo spaces

- ♦ Fixed fire extinguishing system fitted (vsIs > or = 2000 GT)

(SOLAS 48 II/51(a))

(SOLAS 60 II/65(f))

(SOLAS 74 unamended II-2/51(f))

(SOLAS 74, 1981 amendments II-2/53.1)

(SOLAS 74 amended II-2/53.1)

G. Special arrangements in machinery spaces

(SOLAS 74 unamended II-2/54)

(SOLAS 74, 1981 amendments II-2/11)

(SOLAS 74 amended II-2/11)

- ♦ Machinery space ventilating fans can be shut down from outside spaces
- ♦ All openings capable of being closed from outside machinery spaces
- ♦ Machinery driving forced/induced draught fans, oil fuel transfer pumps and other fuel pumps fitted with remote shutdowns located outside space concerned

SECTION E - EXPANDED EXAMINATION (continued)

VII. FIRE PROTECTION (Cont'd)

H. Firemen's outfits

(SOLAS 74 amended II-2/17.3) (all ships)

- ♦ Two outfits
- ♦ Protective clothing
- ♦ Helmet, boots and gloves
- ♦ Lamp
- ♦ Axe
- ♦ Breathing apparatus and lifeline

VIII. ABANDON SHIP AND FIRE DRILL

(Conduct IAW NVIC 6-91)

A. Abandon ship drill

(SOLAS 74 amended III/18.3.4-3.9) (all ships)

- ♦ No language problems between the Officers and crew
- ♦ Crew properly mustered and familiar with their duties
- ♦ Muster lists examined and checked for accuracy
- ♦ Lifeboats satisfactorily launched and motored

B. Fire Drill

(SOLAS 74 amended III/18.3.10-3.13) (all ships)

- ♦ No language problems between the Officers and crew
- ♦ Crew familiar with information given in the fire control plan or booklet
- ♦ Crew familiar with their duties
- ♦ Fire teams properly dressed out and equipped
- ♦ Fire pump started; two jets of water
- ♦ Communication/coordination between bridge and fire parties
- ♦ Operation of watertight doors, fire doors, fire dampers

IX. MACHINERY SPACES

A. Communication between navigating bridge and machinery space

(SOLAS 74 unamended II/32)

(SOLAS 74, 1981 amendments II-1/37)

(SOLAS 74 amended II-1/37)

- ♦ Two means, one of which must be an engine order telegraph
- ♦ Tested

SECTION E - EXPANDED EXAMINATION (continued)

IX. MACHINERY SPACES (Cont'd)

B. Emergency source of electrical power

(SOLAS 74 unamended II/26)

(SOLAS 74, 1981 amendments II-1/43.44)

(SOLAS 74 amended II-1/43.44)

- ♦ Location
- ♦ Generator and/or batteries tested under load

C. Human Factors:

Personnel are familiar with their duties related to operation of:

Emergency generator
(TEST OPERATION DURING ANNUAL EXAM)

- ♦ Actions necessary before engine can be started
- ♦ Different methods by which generator may be started

Stand-by generator engine

- ♦ Methods to start engine automatic or manually
- ♦ Blackout procedures
- ♦ Load sharing system

Steering gear
(TEST OPERATION DURING ANNUAL EXAM)

- ♦ Action needed to bring main and auxiliary into operation
- ♦ Changing steering from automatic to manual and vice versa

Bilge pumps

- ♦ Starting procedures for main and emergency bilge pumps
- ♦ Appropriate valves to operate
- ♦ Most likely causes of failure and possible remedies

Fire pumps

- ♦ Starting procedures for main and emergency fire pumps
- ♦ Appropriate valves to operate

X. MANUALS AND INSTRUCTIONS

A. Check for presence (in appropriate language) of:

- ♦ Instructions for maintenance and operation of all installations/equipment for fighting and containment of fire
(SOLAS 74 amended II-2/20) (all ships)
- ♦ Training manual for lifesaving appliances
(SOLAS 74 amended III/18.2.51) (all ships)

SECTION E - EXPANDED EXAMINATION (continued)

X MANUALS AND INSTRUCTIONS (Cont'd)

- ♦ Instructions for on board maintenance of lifesaving appliances
(SOLAS 74 amended II-1/19.3.52)(all ships)
- ♦ Stability booklet, associated stability plans and information
(SOLAS 74 unamended II-1/19)
(SOLAS 74, 1981 amendments II-1/22)
(SOLAS 74 amended II-1/22.25-8)
(ICLL 66 R.10)
- ♦ IGS - Manufacturer's Instructions Manual and ship's Operating/Maintenance Manual (with specific safety precautions)

B. Human Factors

- ♦ Determine if the appropriate crew members are able to understand the information given in manuals, instructions, etc., relevant to the safe condition of the ship and its equipment and that they are aware of the requirements for maintenance, periodical testing, training, drills and recording of logbook entries.

SECTION F - SUMMARY OF INSPECTION

SUMMARY OF ACTION TAKEN (CHECK ALL APPLICABLE)

- ☐ ISSUED TANK SHIP EXAMINATION LETTER TO EXPIRE
(ONE YEAR FROM DATE OF THIS EXAMINATION)
- ☐ ISSUED LETTER OF COMPLIANCE TO EXPIRE
(TWO YEARS FROM DATE OF THIS EXAMINATION)
- ☐ ENDORSED LETTER OF COMPLIANCE
- ☐ ISSUED SUBCHAPTER "O" ENDORSEMENT TO EXPIRE
(EXPIRATION OF LOC OR SHIP'S IMO CERTIFICATE OF FITNESS, WHICHEVER OCCURS FIRST)
- ☐ NOTED _____ DEFICIENCIES WHICH WERE CORRECTED PRIOR TO COMPLETION OF
THE EXAM.
- ☐ ISSUED _____ REQUIREMENTS WHICH REMAIN OUTSTANDING. If the ship's next port call
is a U.S. port, send a Port File Mail Box to that port advising them of
the outstanding requirements. Enter the outstanding requirements into
MSIS within 12 hours after completion of the examination.
- ☐ CLEARED _____ ITEMS ISSUED _____ BY _____ (port)
- ☐ CONTROL
- ☐ CONTROL AUTHORITY _____ SOLAS _____ MARPOL _____ ICLL
- COTP ORDER WITHHOLD CUSTOMS CLEARANCE

RECORD OF INSPECTION

Boarding Team: 1) _____ 4) _____
2) _____ 5) _____
3) _____ 6) _____

-----TOTAL TIME SPENT PER ACTIVITY-----

SUBJ	ACTIVITY TYPE	-----REGULAR-----			-----RESERVE-----			BOAT	AIRCRAFT
		ACTIVITY	TRAIN	(PERS) MI	ACTIVITY	TRAIN	(PERS) MI		
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—
		ADMIN TRAVEL	—		ADMIN TRAVEL	—			

Print name, rank and date

Signature _____

Lined area for handwritten notes or data.

A CLASSIFICATION SOCIETY CERTIFICATE OR STATEMENT CERTIFYING A SHIP'S COMPLIANCE WITH 46 CFR PART 39 MUST INCLUDE THE FOLLOWING INFORMATION:

1. SHIP IDENTIFICATION (NAME, CLASSIFICATION OR OFFICIAL NUMBER, CALL SIGN AND FLAG).
2. A STATEMENT THAT THE SHIP WAS REVIEWED UNDER AUTHORITY OF 46 CFR PART 39.
3. A STATEMENT THAT THE SHIP MEETS 46 CFR PART 39.
4. A STATEMENT THAT THE INERT GAS MANUAL (IF SHIP HAS IGS) HAS BEEN AMENDED IN ACCORDANCE WITH 46 CFR 32.53-85(B).
5. A STATEMENT THAT THE OIL TRANSFER PROCEDURES HAVE BEEN AMENDED IN ACCORDANCE WITH 33 CFR 155.750(D).
6. THE MAXIMUM ALLOWABLE TRANSFER RATE (CUBIC METERS/HOUR).
7. THE CARGO TANKS TO WHICH THE CERTIFICATION APPLIES.
8. THE MAXIMUM DENSITY OF CARGO VAPOR CONSIDERED.
9. A LIST OF CARGOES FOR WHICH THE VCS SYSTEM WAS REVIEWED. PROPER CARGO NAMES SHOULD BE LISTED (NOT TRADE NAMES).

OILS THAT REQUIRE SHIPS TO HAVE A RESPONSE PLAN

ASPHALT SOLUTION

BLENDING STOCKS
ROOFERS STOCK
STRAIGHT RUM RESIDUE

OILS

CLARIFIED OIL
CRUDE OIL
FUEL OIL NO. 1 (KEROSENE)
FUEL OIL NO. 2
FUEL OIL NO. 2D
FUEL OIL NO. 4
FUEL OIL NO. 5
FUEL OIL NO. 6
RESIDUAL FUEL OIL
ROAD OIL
TRANSFORMER OIL
AROMATIC OIL (EXCLUDING VEGETABLE OIL)
LUBE OIL AND BLENDING STOCK
MINERAL OIL
MOTOR OIL
PENETRATING OIL
SPINDLE OIL
TURBINE OIL
OCTENE
OLEFIN
ANIMAL
RANGE
RESIDUAL
RESIN
ROAD
WHITE (MINERAL)

DISTILLATES

STRAIGHT RUN
FLASHED FEED STOCKS

EASENAL OIL

PINENE
TURPENTINE
DIPENTINE

EDIBLE OILS

CORN
COCONUT
SOYBEAN
OLIVE
COTTON SEED

GASOLINES

AUTOMOTIVE
AVIATION
CASINGHEAD
POLYMER
STRAIGHT RUN
GAS, OIL CRACKED
AKYLATES
REFORMATES

NAPTHA

AROMATIC
CRACKING FRACTION
HEAVY
PARAFFINIC
PETROLEUM
SOLVENT
STODDARD SOLVENT
VARNISH MAKERS
HARTCUT DISTILLATE

ANIMAL OIL

TALLOW
LARD
STEARIC ACID
OLIVE ACID
SPERM OIL
FISH OIL
FISH LIVER